

What is claimed is:

1. A production process rating method for rating a production process on the basis of a predetermined rating standard, the method comprising

preparing in advance plural data including performance rating items associated with rating values as rating indexes for a production process and storing the data into a memory, gathering achievement data by a gathering unit when the production process is executed, judging by an arithmetic unit whether or not the executed production process satisfies conditions defined by the performance rating items on the basis of the gathered achievement data, adding or subtracting a point or points to or from the rating values or performing another arithmetic operation for rating in accordance with the result of the judgment, and comprehensively rating the production process on the basis of the plural performance rating items.

2. The production process rating method as claimed in claim 1, wherein a reference score is set as a default value in starting to rate the production process, and the arithmetic unit adds or subtracts a rating value from the reference score or performs another arithmetic operation for rating in accordance with the result of judgment made for each performance rating item, thereby deciding an ultimate total rating score.

3. The production process rating method as claimed in

claim 1 or 2, wherein the production process is a batch process.

4. The production process rating method as claimed in claim 1 or 2, wherein the production process is a continuous process or a discontinuous process.

5. The production process rating method as claimed in claim 3, wherein a total rating score is decided for each batch process or for each unit recipe in the batch process.

6. The production process rating method as claimed in claim 3, wherein when a batch production cycle time is between an upper limit value and a lower limit value, the arithmetic unit adds a rating value or performing another arithmetic operation for rating to the reference score.

7. The production process rating method as claimed in claim 3, wherein when a batch production cycle time is more than an upper limit value or less than a lower limit value, the arithmetic unit subtracts a rating value or performing another arithmetic operation for rating from the reference score.

8. The production process rating method as claimed in claim 3, wherein rating is carried out when the number of times a batch based on the same recipe revision is executed is a predetermined number or more

9. A production process rating apparatus for rating a production process on the basis of a predetermined rating standard, the apparatus comprising:

a storage unit for storing plural data including performance rating items associated with rating values as rating indexes for a production process;

a gathering unit for gathering achievement data when the production process is executed;

an arithmetic unit for judging whether or not the executed production process satisfies conditions defined by the performance rating items on the basis of the achievement data, adding or subtracting a point or points to or from the rating values or performing another arithmetic operation for rating in accordance with the result of the judgment, and comprehensively rating the production process on the basis of the plural performance rating items; and

a display unit for displaying on a screen a graph based on the result of the rating by the arithmetic unit, with one coordinate axis representing total rating score and the other coordinate axis representing batch ID or unit recipe ID.

10. A production process rating apparatus for rating a production process on the basis of a predetermined rating standard, the apparatus comprising:

a storage unit for storing plural data including performance rating items associated with rating values as rating indexes for a production process;

a gathering unit for gathering achievement data when the production process is executed;

an arithmetic unit for judging whether or not the executed production process satisfies conditions defined by the performance rating items on the basis of the achievement data, adding or subtracting a point or points to or from the rating values or performing another arithmetic operation for rating in accordance with the result of the judgment, and comprehensively rating the production process on the basis of the plural performance rating items; and

a display unit for displaying on a screen a graph based on the result of the rating by the arithmetic unit, with one coordinate axis representing the number of batches or the number of unit recipes and the other coordinate axis representing sections of a total rating score.

11. The production process rating apparatus as claimed in claim 9 or 10, wherein the display unit displays the result of the rating in a bar graph, a line graph, a circle graph, a radar chart, or a graph plotting a total rating score.

12. The production process rating apparatus as claimed in claim 9, wherein the display unit displays the result of the rating for each batch ID or unit recipe ID in a bar graph on a screen, the apparatus further comprising:

a graph preparation unit for preparing a rating achievement data graph for each batch ID or unit recipe ID from rating achievement data with respect to rating parameters;

a selector unit for selecting one of bar graphs displayed

on the screen; and

a call-up unit for calling up a rating achievement data graph including batch ID or unit recipe ID based on the selected bar graph onto the screen.